

# **NG9-1-1 and ShotSpotter**

**April 19, 2011**

## Overview

- **NG9-1-1 Notice of Inquiry**
- **About ShotSpotter**
- **Gunfire and the 911 System**
- **Capabilities and Deployments**
- **ShotSpotter and NG9-1-1**

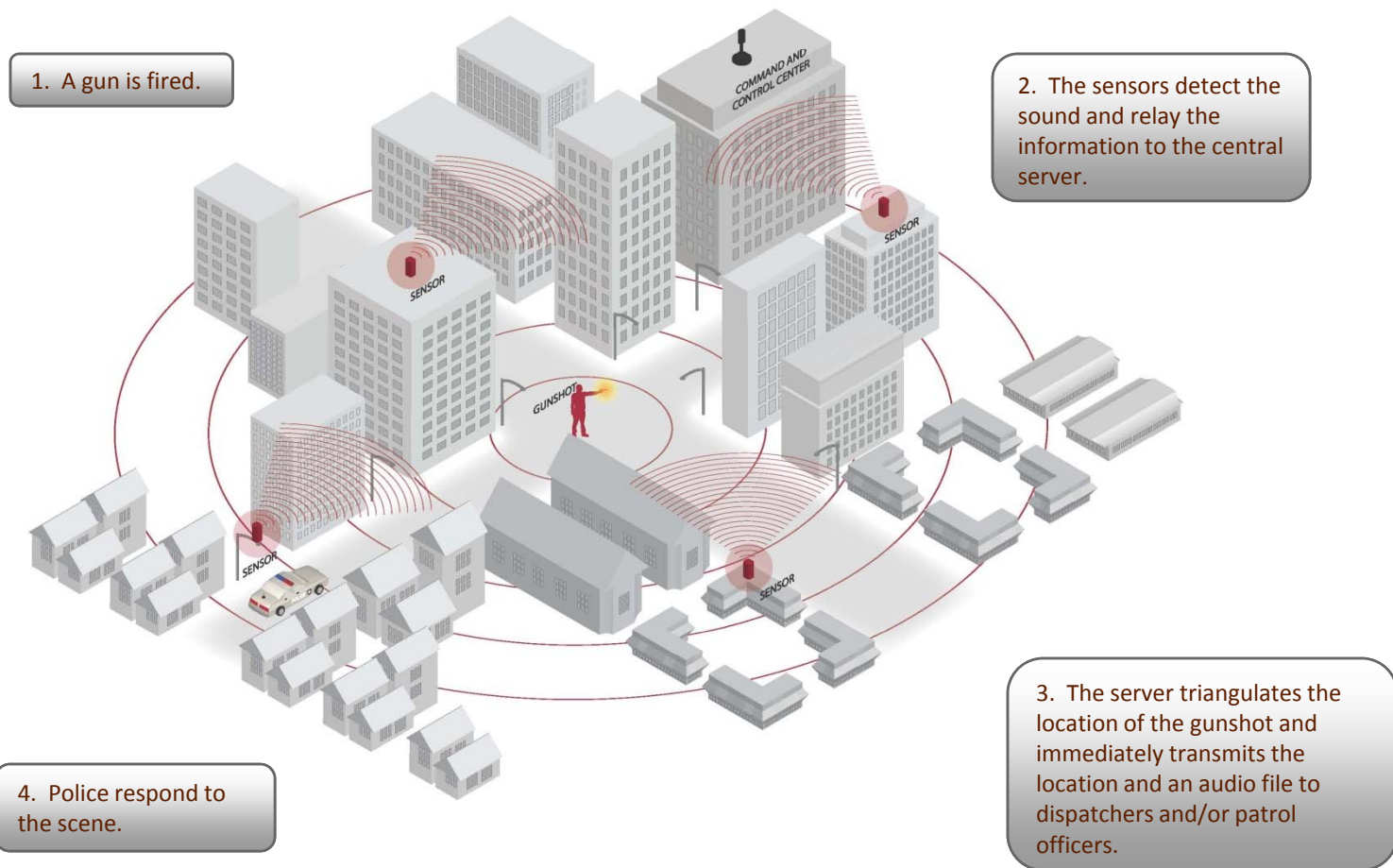
## NG9-1-1 Notice of Inquiry

- Notice of Inquiry
  - “In an IP-based network architecture, emergency calls can be placed not only by human beings, but by a variety of automatically triggered devices”
  - “We seek comment on how the deployment of NG911 will facilitate the ability of device-initiated emergency services to reach PSAPs”
- ShotSpotter Comments (filed Feb. 28, 2011)
  - NG9-1-1 proceeding can help bring emergency response communications into the 21st Century
  - The FCC should advance an NG9-1-1 framework that embraces device-initiated, automatic alerting technologies like ShotSpotter, providing real-time, situational intelligence to emergency responders

## ShotSpotter Background

- Founded in 1995 and based in Mountain View, CA (Silicon Valley)
- Venture Capital backed with leading institutional Investors
- An applied technology innovation with over 20 issued patents
- Deployed in over 50 US cities and 4 countries

## How It Works



## Gunfire and the 911 System

- Approximately 2/3 of all homicides are committed using a firearm (CDC 2007)
- In many crime-ridden areas, as few as 25% of gunfire incidents are called into 911
- Even when reported, the caller can often only provide imprecise information on location and number of shots fired



**CALLER ONE: HEARD 5-6 SHOTS  
UNKNOWN DIRECTION**

**CALLER TWO: HEARD 4-5 SHOTS  
COMING FROM THE NORTH**

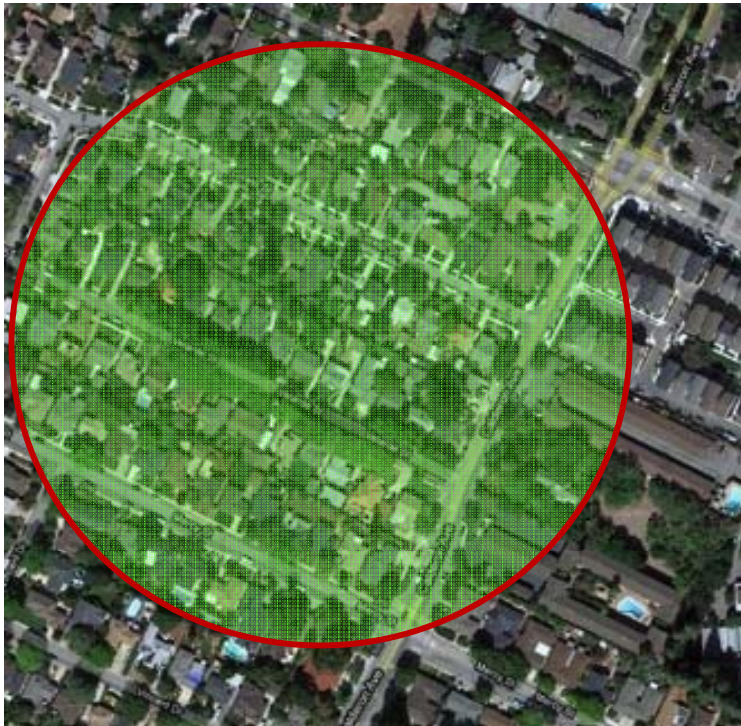
**CALLER THREE: HEARD 6-7 SHOTS  
POSSIBLY STREET BEHIND**



# ShotSpotter Response Capabilities

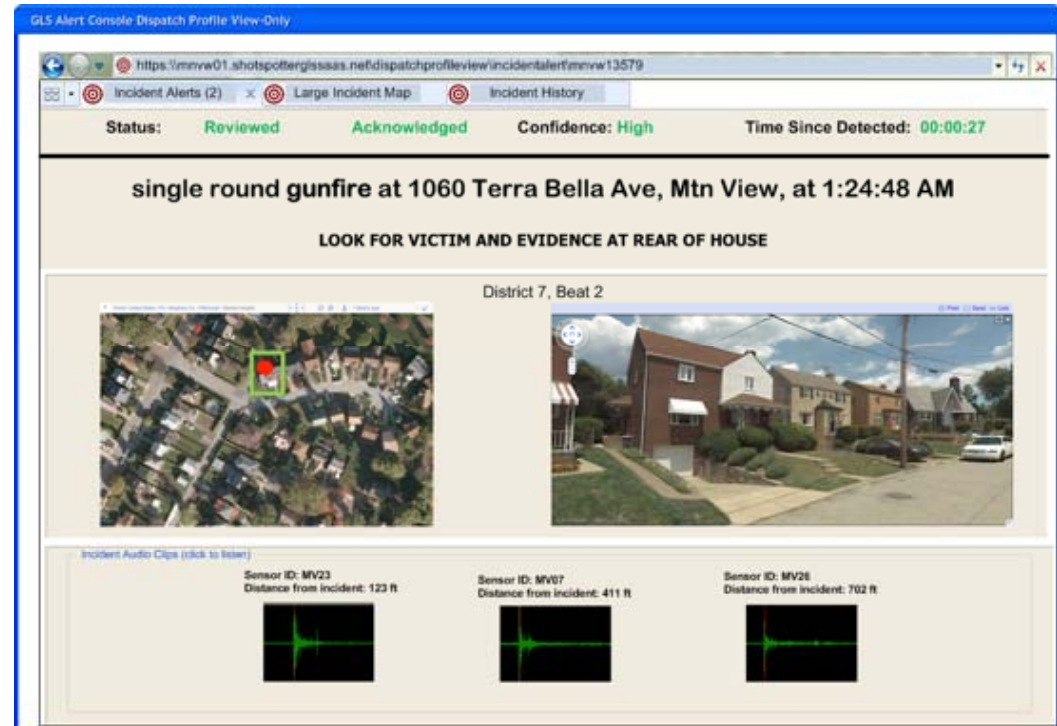
## 911 call –

When reported, general location of shots fired



## ShotSpotter –

Precise location of shots fired, number of rounds



## ShotSpotter's Value-Add

- Actionable Situational Intelligence
  - Providing first responders with more accurate incident information to more safely approach a crime scene (e.g., a single handgun shot vs. multiple shots from automatic weapons)
  - Increasing law enforcement responsiveness and presence in crime-ridden communities
  - Saving more lives
  - Apprehending more criminals & confiscating firearms
  - Capturing more evidence & witnesses interviews
- Evidence is court-admissible
- Accumulated data is valuable to crime analysts



## ShotSpotter Deployments

### UNITED STATES LOCATIONS

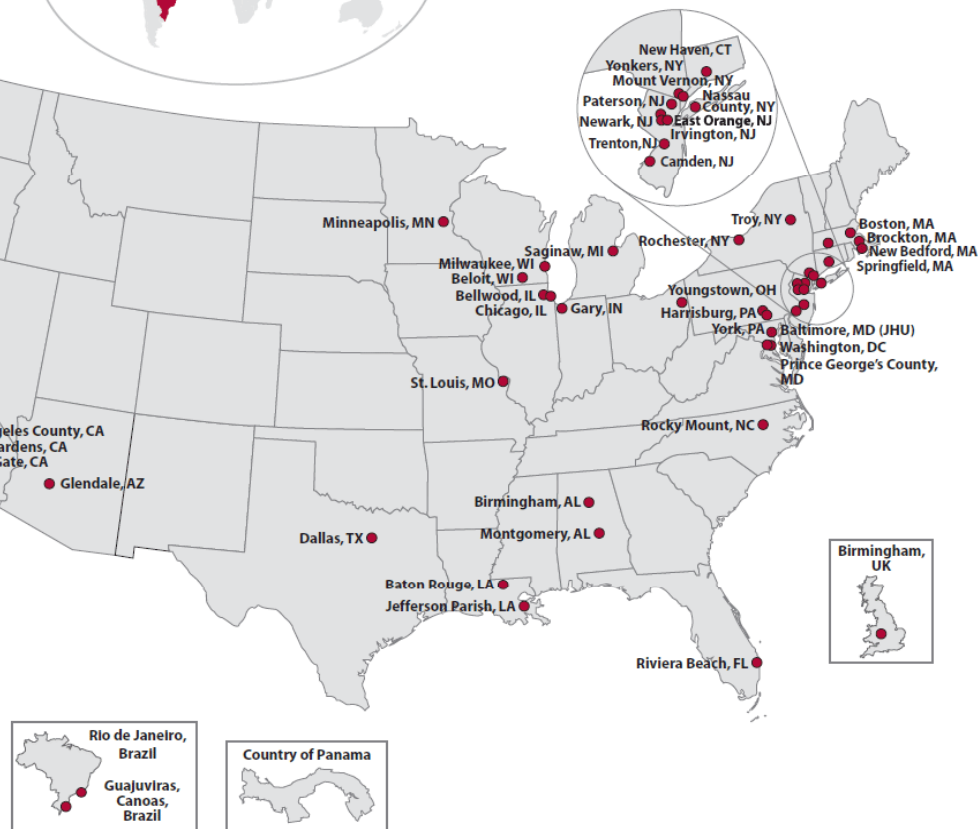
Baltimore, MD - Johns Hopkins University (2009)  
 Baton Rouge, LA (2007)  
 Bell Gardens, CA (2009)  
 Bellwood, IL (2007)  
 Beloit, WI (2008)  
 Birmingham, AL (2007)  
 Boston, MA (2007)  
 Brockton, MA (2009)  
 Camden, NJ (2010)  
 Chicago, IL (2007)  
 Dallas, TX (2009)  
 East Orange, NJ (2006)  
 East Palo Alto, CA (2007)  
 FBI (two systems) (2007)  
 Gary, IN (2005, four expansions)  
 Glendale, AZ (2002)  
 Harrisburg, PA (2009)  
 Irvington, NJ (2008)  
 Jefferson Parish, LA (2010)  
 Los Angeles County, CA (2007, two systems, two expansions)  
 Milwaukee, WI (2010)  
 Minneapolis, MN (2006)  
 Montgomery, AL (2009)  
 Mount Vernon, NY (2009)  
 Nassau County, NY (2008)  
 New Haven, CT (2008)  
 New Bedford, MA (2011)  
 Newark, NJ (2008)  
 NLECTC (2007)  
 Oakland, CA (2006)  
 Paterson, NJ (2007)  
 Prince George's County, MD (2009, one expansion)  
 Redwood City, CA (1996, one expansion)  
 Richmond, CA (2009, one expansion)  
 Riviera Beach, FL (2009)  
 Rochester, NY (2006, two expansions)  
 Rocky Mount, NC (2011)  
 Saginaw, MI (2008, one expansion)  
 San Francisco, CA (2007, three expansions)  
 San Pablo, CA (2010)  
 South Gate, CA (2008)  
 Springfield, MA (2007, one expansion)  
 St. Louis, MO (2008)  
 Trenton, NJ (2009)  
 Troy, NY (2008)  
 Washington D.C. (2006, two expansions)  
 Yonkers, NY (2009)  
 York, PA (2007)  
 Youngstown, OH (2009)

### INTERNATIONAL LOCATIONS

Birmingham, UK (2010)  
 Guajuviras, Canoas, RS, Brazil (2010)  
 Panama (2010)  
 Rio de Janeiro, Brazil (2010)



ShotSpotter  
Gunshot Location System®



## Delivers Results

- Enabling Faster, More Accurate Response

*“We get there sooner, which means we’re more likely to catch the person responsible. For an injured person, it can be the difference between living and dying.”* Former Chief of Police Charles H. Ramsey, Metropolitan Police Department, Washington, D.C.

- Saving Lives

*“We’ve had numerous cases in which we’ve found victims laying there bleeding from gunshot wounds. If we wouldn’t have been notified via the ShotSpotter system, there’s a good chance some of these people would’ve died.”* Sheriff Lee Baca, Los Angeles County Sheriff’s Department, Los Angeles County, California

- Decreasing Violence

*“The city of Rochester has seen a 43 percent reduction in gunfire since the system went live in July of 2006. Within 48 hours of turning the system on we had our first felony arrest.”* Mike Bialaszewski, Rochester Police Department, Rochester, New York

- Providing Actionable Data for Investigators

*“Evidence from the ShotSpotter system and the city’s public safety video cameras has been used in ‘hundreds’ of cases since it was first installed four years ago, often corroborating other bits of evidence or assisting investigators with solid proof of people’s whereabouts.”* Deputy Chief Rob Allen, Minneapolis Police Department, Minneapolis, Minnesota

## ShotSpotter and NG9-1-1

- Integration of sensor and surveillance capabilities, including acoustic sensing capabilities, enhance the public value of today's 911 systems as well as NG9-1-1 systems
  - Information is delivered in real-time directly to PSAPs and First Responders via a client/browser-based application, enabling increased responsiveness
  - Readily interfaces with complementary systems, enabling increased effectiveness
    - Automatic entry of requests for assistance into computer-aided dispatch
    - Automatic and immediate slewing of video surveillance cameras toward the location of the incident plus surrounding egress routes
    - Feeds incident information directly into common operating picture systems
- Currently, ShotSpotter is integrating with NG9-1-1 solutions such as Intrado's A911™ emergency services IP network

## ShotSpotter and NG9-1-1

- As a result of the NOI, the Commission should:
  - Ensure a broad vision of NG9-1-1 that embraces device-initiated emergency response requests
  - Help lead an effort to update existing laws, regulations, and tariffs to facilitate the incorporation of device-initiated emergency response requests
  - Promote the continued dialog among NG9-1-1 stakeholders

## Questions?

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